

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A liquid crystal display device, comprising:
 - a liquid crystal display (LCD) panel, the LCD panel including a plurality of gate lines and a plurality of data lines crossing the plurality of gate lines, and a plurality of red (R), green (G), and blue (B) pixels arranged in a matrix pattern;
 - a gate driving unit to apply scan signals to the plurality of gate lines;
 - a lookup table to store a gray scale value corresponding to a predetermined gray scale level of a first displayable color;
 - a data processing unit that retrieves a gray scale value from the lookup table using input data for the first displayable color, that determines from the retrieved gray scale value whether color reproducibility for the first displayable color is reduced, and that based on the determination compensates the input data for the first displayable color and supplies gray scale data for a second displayable color to produce compensated image information, wherein the gray scale data for the second display color is retrieved from the lookup table using the input data for the first displayable color; and
 - a data driving unit to receive the compensated image information and to apply the compensated image information to the data lines.
2. (Currently Amended) The device of claim 1, wherein the predetermined gray scale level corresponds to a gray scale level of the first displayable color prior to a reduction in a reproducibility of the first displayable color.
3. (Previously Presented) The device of claim 1, wherein the stored gray scale value is a maximum gray scale value,
 - wherein the maximum gray scale value is the gray scale value corresponding to the maximum gray scale level displayable by the LCD panel for which the color reproducibility of the first displayable color is not reduced.

4. (Previously Presented) The device of claim 1, wherein the first displayable color includes at least one of a red, green, and blue color.

5. (Previously Presented) The device of claim 1, wherein the first displayable color is displayable at a plurality of gray scale levels.

6. (Original) The device of claim 1, wherein the lookup table stores gray scale values of a blue color.

7. (Previously Presented) The device of claim 6, wherein the lookup table stores gray scale values each corresponding to one of 64 gray scale levels of the blue color.

8. (Previously Presented) The device of claim 7, wherein the maximum gray scale value corresponds to a 51st gray scale level of the blue color.

9. (Previously Presented) The device of claim 8, wherein stored gray scale values corresponding to a 52nd gray scale level to a 64th gray scale level are identical to a gray scale value corresponding to the 51st gray scale level.

10. (Original) The device of claim 1, wherein the lookup table stores gray scale values of blue, red, and green colors.

11. (Previously Presented) The device of claim 10, wherein gray scale values of the 52nd gray scale level to the 64th gray scale level are storable in the lookup table upon mixing gray scale values of at least two of R, G, and B colors.

12. (Currently Amended) A method for improving a color reproducibility of a liquid crystal display (LCD) device, comprising:

increasing a gray scale value of at least one of a red (R), green (G), and blue (B) color;

detecting a gray scale value at which a color reproducibility of the LCD device is reduced;

storing a correspondence of the detected gray scale value and a predetermined gray scale level of a displayable color;

compensating a received image information, the received image information including the detected gray scale value for [[the]] a displayable color and retrieved gray scale values for at least one other color different from the displayable color to enhance the reproducibility of the [[first]] displayable color, wherein the retrieved the gray scale values for the at least one other color are retrieved from a lookup table using a gray scale value for the displayable color of the received image information; and

applying the compensated image information to data lines of the LCD device, the compensated image information including the maximum gray scale value,

wherein the maximum gray scale value is the gray scale value corresponding to the maximum gray scale level displayable by the LCD panel for which the color reproducibility of the displayable color is not reduced, and

wherein detecting includes measuring the gray scale level of a color displayed by the LCD panel.

13. (Original) The method of claim 12, wherein the predetermined gray scale level corresponds to a gray scale level of the displayable color prior to a reduction in a reproducibility of the displayable color.

14. (Original) The method of claim 12, wherein the stored gray scale value is the maximum gray scale value.

15. (Canceled)

16. (Previously Presented) The method of claim 12, wherein the displayable color includes at least one of a red, green, and blue color.

17. (Previously Presented) The method of claim 12, wherein the maximum gray scale value corresponds to a 51st gray scale level of the blue color.

18. (Previously Presented) The method of claim 17, wherein the gray scale value at which the color reproducibility is reduced corresponds to a 52nd one of 64 gray scale levels of blue color displayable by the LCD device.

19. (Currently Amended) A method of driving a display device, comprising:
receiving image information, the image information including a gray scale value corresponding to a first color displayable by the display device;
determining whether the gray scale value is greater than a predetermined corresponding gray scale level at which the first color is displayable by the display device;
applying the image information to the display device if it is determined the gray scale value is not greater than the predetermined corresponding gray scale level; and
compensating the image information if it is determined the gray scale value is greater than the predetermined corresponding gray scale level, wherein compensating the image information includes compensating a [[grey]] gray scale value for the first color displayable by the display device and supplying a [[grey]] gray scale value for a second color displayable by the display device, and wherein the gray scale data for the second display color is retrieved using the gray scale value of the image received image information corresponding to the first color displayable by the display device.

20. (Previously Presented) The method of claim 19, further comprising applying the compensated image information to a plurality of data lines of the display device.

21. (Previously Presented) The method of claim 19, wherein the first color is at least one of a red, green, and blue color.

22. (Previously Presented) The method of claim 19, wherein the predetermined corresponding gray scale level corresponds to a gray scale level of the first color displayable by the display device, wherein the color is displayable at a reduced color reproducibility.

23. (Original) The method of claim 19, wherein the compensating includes mixing gray scale values of at least two of red, green, and blue colors.